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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/587,581	06/05/2000	Jan Burchhardt	ST9-99-146	8409

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EXAMINER

HILLERY, NATHAN

ART UNIT PAPER NUMBER

2176

DATE MAILED: 08/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/587,581

Applicant(s)

BURCHHARDT ET AL.

Examiner

Nathan Hillery

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

1. This action is responsive to communications: Amendment filed on 4/16/04.
2. Claims 1 – 30 are pending in the case. Claims 1, 11, and 21 are independent.
3. The objection to the specification has been withdrawn as necessitated by amendment.
4. The rejection of claims 4, 10, 14, 20, 24, and 30 under 35 U.S.C. 112, second paragraph as being indefinite has been withdrawn as necessitated by amendment.
5. The rejection of claims 1 – 30 under 35 U.S.C. 103(a) as being unpatentable has been withdrawn as necessitated by amendment.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
7. Claims 1 – 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
8. **Regarding independent claims 1, 11, and 21**, it is unclear what applicant means by “representative of the syntax and semantics”. Consequently, all subsequent recitations are also rejected.
9. **Regarding dependent claims 4, 14, and 24**, it is unclear what applicant means by “substantially semantically equivalent to”. Further, the metes and

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bounds of "substantially semantically equivalent to" are unclear. Consequently, all subsequent recitations are also rejected.

10. **Regarding the remaining claims**, the claims are rejected for fully incorporating the deficiencies of the base claim(s) from which they depend.

Claim Rejections - 35 USC § 103

11. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

12. Claims 1 – 5, 11 – 15, 21 – 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stewart (US005715453A) and further in view of Blackman et al. (US005737597A) and W3C (WIDL).

13. **Regarding independent claim 1**, Stewart teaches that *referring to FIGS. 1 and 7, main memory 120 includes a web server application 122, a transaction processor 124, one or more macro files 126, a configuration file 128, one or more language processors 130, an operating system 134, one or more application programs 136, and program data 138. Application programs 136 are executed by CPU 110 under the control of operating system 134. Application programs 136 can be run with program data 138 as input. Application programs 136 can also output their results as program data 138 in main memory. In the present invention, a computer system 100 is operating as a web server, so CPU 110 executes, among other things, web server application 122. Transaction processor 124 is a program that processes an HTML page stored in one or more macro files 126. When transaction processor 124 is initialized, it reads configuration file 128 to correlate different types of queries to different language*

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*processors 130. When a query to dynamic data is found in a page, transaction processor 124 determines from the configuration data (read from the configuration file) which language processor 130 it should call to process the query. The appropriate language processor 130 then queries a data source, such as a memory or a database, to retrieve the dynamic data. Language processor 130 passes the dynamic data to transaction processor 124, which inserts the dynamic data into the HTML data for the selected page. (Column 4, lines 12 – 36). Blackman et al. teach that in the preferred embodiment, the record layout is captured from a COBOL "copylib" used by the application program 104. On the other hand, the record layout may also be captured from other languages, such as C, C++, Assembler, Pascal or PL/1 (column 8, lines 46 – 50) and W3C teaches that WIDL is an application of the eXtensible Markup Language (XML); it allows interactions with Web servers to be defined as functional interfaces that can be accessed by remote systems over standard Web protocols, and provides the structure necessary for generating client code in languages such as Java, C/C++, COBOL, and Visual Basic (Abstract, page 1). It would have been obvious to one with ordinary skill in the art at the time of the invention to interpret the above disclosures as having the capabilities of **generating an XML document template from a transaction processing system message definition, the message definition representative of the syntax and semantics for messages exchanged with the transaction processing system and merging a transaction processing system message with the generated template to produce a corresponding XML document**, since the*

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Hutchinson Dictionary of Computers, Multimedia, and the Internet defines a template as a *file that lays down a document's format. Templates are used in word processing, spreadsheet, and other programs to specify all the styles used in a document, such as fonts, margins, macros, formulas and so on. They are widely used to automate the production of documents such as memos, mailings and reports, making sure that they have a uniform appearance and*

Webopedia.com discloses that a DTD states what tags and attributes are used to describe content in an SGML, XML or HTML document, where each tag is allowed, and which tags can appear within other tags. For example, in a DTD one could say that LIST tags can contain ITEM tags, but ITEM tags cannot contain LIST tags. In some editors, when authors are inputting information, they can place tags only where the DTD allows. This ensures that all the documentation is formatted the same way. Applications will use a document's DTD to properly read and display a document's contents. Changes in the format of the document can be easily made by modifying the DTD. Further, it would have been obvious to one with ordinary skill in the art to know that WIDL can be converted into XML, since *WIDL is an application of XML* (W3C, Abstract). It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the invention of Stewart with that of Blackman et al. and W3C because such a combination would allow the users of Stewart the benefit of a computer system that *defines and generates code for datastore persistent objects* (Blackman et al., Column 3, lines 56 – 57), and *WIDL definitions [which] provide a mapping between Web resources and applications written in*

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conventional programming languages such as C/C++, COBOL, Visual Basic, Java, JavaScript, etc. (W3C, Page 2, fifth block paragraph).

14. **Regarding dependent claim 2**, Stewart teaches that *referring to FIGS. 1 and 7, main memory 120 includes a web server application 122, a transaction processor 124, one or more macro files 126, a configuration file 128, one or more language processors 130, an operating system 134, one or more application programs 136, and program data 138. Application programs 136 are executed by CPU 110 under the control of operating system 134. Application programs 136 can be run with program data 138 as input. Application programs 136 can also output their results as program data 138 in main memory. In the present invention, a computer system 100 is operating as a web server, so CPU 110 executes, among other things, web server application 122. Transaction processor 124 is a program that processes an HTML page stored in one or more macro files 126. When transaction processor 124 is initialized, it reads configuration file 128 to correlate different types of queries to different language processors 130. When a query to dynamic data is found in a page, transaction processor 124 determines from the configuration data (read from the configuration file) which language processor 130 it should call to process the query. The appropriate language processor 130 then queries a data source, such as a memory or a database, to retrieve the dynamic data. Language processor 130 passes the dynamic data to transaction processor 124, which inserts the dynamic data into the HTML data for the selected page. (Column 4, lines 12 – 36). Blackman et al. teach that it is well known in the art to use*

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database management systems, such as IBM's IMSTM (Information Management System) database management system, to manage computerized datastores (Column 2, lines 37 – 40) and that *in the preferred embodiment, the record layout is captured from a COBOL "copylib" used by the application program 104* (column 8, lines 46 – 48), which provide for **obtaining a transaction processing system message definition**. Blackman et al. do not explicitly teach **obtaining a DTD ... compiling the TRANSACTION PROCESSING SYSTEM message definition ... or parsing the Adata file**. W3c do teach that *WIDL is an application of the eXtensible Markup Language (XML); it allows interactions with Web servers to be defined as functional interfaces that can be accessed by remote systems over standard Web protocols, and provides the structure necessary for generating client code in languages such as Java, C/C++, COBOL, and Visual Basic* (Abstract, page 1. It would have been obvious to one with ordinary skill in the art to interpret the combination of W3C and Blackman et al to have the capabilities of providing for **obtaining a DTD for representing arbitrary TRANSACTION PROCESSING SYSTEM message definitions, compiling the TRANSACTION PROCESSING SYSTEM message definition with an option configured to produce an associated data (Adata) file, and parsing the Adata file using the DTD to generate an XML document template corresponding to the TRANSACTION PROCESSING SYSTEM message definition**, since *WIDL definitions provide a mapping between Web resources and applications written in conventional programming languages such as C/C++, COBOL, Visual Basic, Java, JavaScript, etc.()*, the skilled artisan

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understands that a DTD is involved since Webopedia.com discloses that *Applications will use a document's DTD to properly read and display a document's contents*; also the skilled artisan knows that the COBOL must be compiled before it can be mapped in WIDL; and *WIDL is an application of XML* (W3C, Abstract) thus the skilled artisan also knows that a DTD is needed to render and/or transform it into XML. Finally, the Hutchinson Dictionary of Computers, Multimedia, and the Internet defines a template as a *file that lays down a document's format* and Webopedia.com discloses that *changes in the format of the document can be easily made by modifying the DTD*. It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the invention of Stewart with that of Blackman et al. and W3C because such a combination would allow the users of Stewart the benefit of a computer system that *defines and generates code for datastore persistent objects* (Blackman et al., Column 3, lines 56 – 57), and *WIDL definitions [which] provide a mapping between Web resources and applications written in conventional programming languages such as C/C++, COBOL, Visual Basic, Java, JavaScript, etc.* (W3C, Page 2, fifth block paragraph).

15. **Regarding dependent claim 3**, the claim incorporates substantially similar subject matter as claim 2, and is rejected along the same rationale.

16. **Regarding dependent claim 4**, neither Stewart nor Blackman et al. explicitly teach **the Adata file....** W3C teaches that *the purpose of the Web Interface Definition Language (WIDL) is to enable automation of all interactions with HTML/XML documents and forms, providing a general method of*

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representing request/response interactions over standard Web protocols, and allowing the Web to be utilized as a universal integration platform (page 2, third block paragraph), which provide for **the Adata file comprises at least one TRANSACTION PROCESSING SYSTEM message definition in a format substantially semantically equivalent to program source code from which the transaction processing system message definition originates.** It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the invention of Blackman et al. with that of W3C because such a combination would allow the users of Blackman et al. the benefit of *WIDL definitions [which] provide a mapping between Web resources and applications written in conventional programming languages* (W3C, Page 2, fifth block paragraph).

17. **Regarding dependent claims 5 and 23,** Blackman et al. teach that *in the preferred embodiment, the record layout is captured from a COBOL "copylib" used by the application program 104. On the other hand, the record layout may also be captured from other languages, such as C, C++, Assembler, Pascal or PL/I* (column 8, lines 46 – 50), which provide for **extracting the TRANSACTION PROCESSING SYSTEM message definition from one of an application source code file and a copy file, and the TRANSACTION PROCESSING SYSTEM message definition comprises program source code in a language selected from the group consisting of COBOL, PL/I, Assembler, and Pascal.**

18. **Regarding independent claim 11,** the claim incorporates substantially similar subject matter as claim 1, and is rejected along the same rationale.

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19. **Regarding dependent claim 12**, the claim incorporates substantially similar subject matter as claim 2, and is rejected along the same rationale.
20. **Regarding dependent claim 13**, the claim incorporates substantially similar subject matter as claim 3, and is rejected along the same rationale.
21. **Regarding dependent claim 14**, the claim incorporates substantially similar subject matter as claim 4, and is rejected along the same rationale.
22. **Regarding dependent claim 15**, the claim incorporates substantially similar subject matter as claim 5, and is rejected along the same rationale.
23. **Regarding independent claim 21**, the claim incorporates substantially similar subject matter as claim 1, and is rejected along the same rationale.
24. **Regarding dependent claim 22**, the claim incorporates substantially similar subject matter as claim 2, and is rejected along the same rationale.
25. **Regarding dependent claim 24**, the claim incorporates substantially similar subject matter as claim 4, and is rejected along the same rationale.
26. **Regarding dependent claim 25**, the claim incorporates substantially similar subject matter as claim 5, and is rejected along the same rationale.

27. Claims 6, 16, and 26 rejected under 35 U.S.C. 103(a) as being unpatentable over Stewart (US005715453A), Blackman et al. (US005737597A) and W3C (WIDL) as applied to claims 1 – 5, 11 – 15, 21 – 25 above, and further in view of Iyengar et al. (US006038393A) and Brodsky (XMI Opens Application Interchange).

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28. **Regarding dependent claim 6**, Stewart, Blackman et al. nor W3C explicitly teach **creating a UML object model for representing arbitrary TRANSACTION PROCESSING SYSTEM message definitions and processing the object model using an XML utility to generate the DTD.**

lyengar et al. do teach that *the system also transforms legacy business processes, including legacy applications into UML format* (Abstract, lines 4 – 6).

It would have been obvious to one with ordinary skill in the art to interpret the disclosure as providing for **creating a UML object model for representing arbitrary TRANSACTION PROCESSING SYSTEM message definitions and processing the object model using an XML utility to generate the DTD**, since Brodsky teaches that *once the type of information needed to be exchanged is expressed in UML, XML will automatically create the DTD and transfer format* (page 7, lines 9 – 10). It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the inventions of Blackman et al. with that of lyengar et al. because such a combination would allow the users of the combined invention of Blackman et al. and W3c the benefit of *a means of transforming a distinctive representation of business model information into a generalized representation* (Column 2, lines 31 – 33).

29. **Regarding dependent claim 16**, the claim incorporates substantially similar subject matter as claim 6, and is rejected along the same rationale.

30. **Regarding dependent claim 26**, the claim incorporates substantially similar subject matter as claim 6, and is rejected along the same rationale.

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31. Claims 7 – 10, 17 – 20, and 27 – 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stewart (US005715453A), Blackman et al. (US005737597A) and W3C (WIDL) as applied to claims 1 – 5, 11 – 15, 21 – 25 above, and further in view of Friedman (US006182029).

32. **Regarding dependent claims 7 – 10**, Stewart, Blackman et al. nor W3C explicitly teach **identifying a placeholder ... reading the value ... inserting the value ... the placeholder comprises an XML tag, checking the placeholder ... and reading a portion of the TRANSACTION PROCESSING SYSTEM message....** However, it would have been obvious to one with ordinary skill in the art at the time of the invention to interpret most inventions relating to this field of endeavor as being capable of **identifying a placeholder within the XML document template for receiving a corresponding value from the TRANSACTION PROCESSING SYSTEM message, reading the value from the TRANSACTION PROCESSING SYSTEM message, inserting the value into a location within the XML document template indicated by the placeholder, the placeholder comprises an XML tag, checking the placeholder for an associated tag indicating that a corresponding value exists within the TRANSACTION PROCESSING SYSTEM message, and reading a portion of the TRANSACTION PROCESSING SYSTEM message corresponding to the indicated size**, since according to Friedman, *the structure of XML documents is specified using a DTD, which is a set of blueprints related to information about the organization of the document type and consists of specifications concerning the structure of the document. The DTD is used by*

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an XML parser to ensure that a document is valid according to the DTD. The DTD further specifies positions, attributes, cardinality and values of the XML tags (Column 12, lines 14 – 20).

33. **Regarding dependent claim 17**, the claim incorporates substantially similar subject matter as claim 7, and is rejected along the same rationale.

34. **Regarding dependent claim 18**, the claim incorporates substantially similar subject matter as claim 8, and is rejected along the same rationale.

35. **Regarding dependent claim 19**, the claim incorporates substantially similar subject matter as claim 9, and is rejected along the same rationale.

36. **Regarding dependent claim 20**, the claim incorporates substantially similar subject matter as claim 10, and is rejected along the same rationale.

37. **Regarding dependent claim 27**, the claim incorporates substantially similar subject matter as claim 7, and is rejected along the same rationale.

38. **Regarding dependent claim 28**, the claim incorporates substantially similar subject matter as claim 8, and is rejected along the same rationale.

39. **Regarding dependent claim 29**, the claim incorporates substantially similar subject matter as claim 9, and is rejected along the same rationale.

40. **Regarding dependent claim 30**, the claim incorporates substantially similar subject matter as claim 10, and is rejected along the same rationale.

Response to Arguments

41. Applicant's arguments with respect to claims 1, 8, and 15 have been considered but are moot in view of the new ground(s) of rejection.

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42. It is noted that Applicant's amendment significantly changes the scope of the claimed invention when interpreted as a whole.

Conclusion

43. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Hillery whose telephone number is (703) 305-4502. The examiner can normally be reached on M - F, 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on (703) 305-9792. The

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fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JOSEPH FEILD
SUPERVISORY PATENT EXAMINER

NH